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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/691,822    08/05/96    LEE

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B5M1/0930

CUNNINGHAM, J.  
EXAMINER

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WASHINGTON DC 20005-3918

ART UNIT	PAPER NUMBER
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2504

DATE MAILED:    09/30/96

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/691,822**

Applicant(s)  
**Lee**

Examiner  
**Terry D. Cunningham**

Group Art Unit  
**2504**



☒ Responsive to communication(s) filed on Sep 20, 1996

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-5, 7, and 8 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 4, 5, 7, and 8 is/are rejected.

☒ Claim(s) 2 and 3 is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 19

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

It is noted that a specification and drawings were submitted with the File-Wrapper Continuation papers filed on 08/05/96. However, these papers cannot be entered since they apparently belong to a different case.

The disclosure is objected to because the new language in lines 17 and 18 is not understood. It is not understood how the "substrate bias generator" "prevents consumption of current thereby" (emphasis added). This phrase is awkward and confusing. It appears that it would be more appropriate to state that the "substrate bias generator" --does not consume current--. Appropriate correction is required.

Claim 2 is objected to, because, for proper antecedent "said" in line 11 should be changed to --a-- and "a", first occurrence, in line 21 should be changed to --said--. Appropriate correction is required.

Claims 1, 4, 5, 7 and 8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 20 and 21, there no antecedent for "the self-refresh mode" or "the standby state of the self-refresh mode" nor can it possibly be understood what is meant by this phrase.

Claim 4 is rejected for similar reasons as claim 1.

Claim 5 is rejected for the reasons discussed above with claim 4.

Claims 7 and 8 are rejected for the reasons discussed above with claim 1.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sugibayashi et al.

With respect to claims 1, 4 and 8, the reference to Sugibayashi et al. disclose, in Fig. 6, a circuit similar to that recited, but does not disclose specific details disclosed for the comparator 13i. However, Fig. 11 discloses another "voltage monitoring circuit" showing the details of the comparator 23. The reference to Sugibayashi et al. does not specifically disclose using the comparator of the "voltage monitoring circuit" of Fig. 1 in the "voltage monitoring circuit" of Fig. 6. However, it is clear that the structure for the comparator in Fig. 11 is merely well-known conventional structure and could be used for the comparator of Fig. 6. Such structure is well known to have simple construction and due to the mirror circuit, such will have the same current in both paths. Therefore, it would have been obvious for one skilled in the art to use the specific comparator of Fig. 11 for the broad comparator of Fig. 6 to obtain the expected advantages therewith.

This modification would provide a circuit comprising: "a voltage pump circuit (13k of Fig. 9)"; "an oscillator (13j of Fig. 9)"; "a substrate voltage detector (13g of Fig. 6)" having "a PMOS transistor (23d)...connected to a power supply (PW1)" and "a MOS transistor (23e) connected to a ground supply"; and "a controller (rest of Fig. 6)" responsive to "a chip enable signal (Vref) and "a self refresh mode enable signal (PONA)", all connected and operating similarly as recited by Applicant.

With respect to claim 5, Fig. 6 clearly discloses an inverter IV1 connected to the output of the "NOR circuit". It is notoriously well known that an inverter can be constructed utilizing an "AND circuit". Therefore, it would have been obvious for one skilled in the art to construct inverter IV1 utilizing an "AND circuit".

Examiner has considered Applicant's remarks concerning the above rejection and has not found them to be persuasive. Firstly, the language discussed by Applicant is quite indefinite, as

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discussed above, it is not seen that such language can overcome the rejection. And secondly, it is noted that even if the claims had antecedent for the "self-refresh mode" or the "standby state" thereof, since no relevance, relativity or definition is recited for these terms, it is not seen that such can be given the weight of having any different operation than that disclosed in Sugibayashi et al.

Claims 2 and 3 would be allowable if rewritten or amended to overcome the objections thereto.

Claim 7 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.

It is noted that the Korean reference on the attached PTO-1449 has been lined through because there was no copy of the reference or the translation provided therewith.

This is a Continuation of applicant's earlier application S.N. 08/691,822. All rejected claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds or art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL**, even though it is a first action in this case. See M.P.E.P. § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

**A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY**

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ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terry Cunningham at telephone number (703) 308-4872. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

The fax phone number for Art Unit 2504 is (703) 308-7722. Please note, any faxed paper clearly stating **DRAFT** or **PROPOSED AMENDMENT** at the top will be forwarded directly to the Examiner. All others will be treated as a formal response and acted upon accordingly.

TC  
September 26, 1996

  
Terry D. Cunningham  
Primary Examiner  
Group Art Unit 2504